

REMARKS

STATUS OF CLAIMS

Claims 1, 4-8, and 11-22 are pending. Claim 15 has been amended to correct a typographical error. Claims 7 and 14 have been amended to remove the “,” after “olefin,” as suggested by the Examiner. Claims 1, 4, 6, 8, 11, 13 and 18 have been amended to recite an alkylphosphoro(mono)thioate compound. Support for this amendment can be found, for example, in the originally filed specification, for example on page 3, paragraph [0035] and original claims 4, 5, 11 and 12. Claims 5 and 12 have been amended to delete redundant language in light of the previous amendment. Claims 1, 6, 8, 13 and 18 have also been amended to further define a hydrocarbylamine compound as selected from the group consisting of N-oley- trimethylene diamine, N-tallow-trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof. Support for this amendment can be found, for example, in the originally filed specification, for example on page 3, paragraph [0039], and original claims 3 and 10. Claims 2, 3, 9 and 10 have been canceled. No new matter has been added.

A. DOUBLE PATENTING

The Examiner has provisionally rejected claims 1-22 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 8, 14-19, 21-23, 25, and 27-31 in light of copending Application No. 10/693,197 (“copending ’197”). See pages 3-7 of the Office Action. Applicants respectfully request abeyance of the rejection until patentable subject matter has been found.

B. REJECTIONS UNDER § 112

The Examiner has rejected claims 6, 13, and 15 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter for which Applicants regard as the invention. Specifically, the Examiner argued that the scope of claims 6 and 13 is confusing because claim 13 recites “major amount of base oil” and claim 6 recites “minor amount of diluent oil” and it is not clear what is meant by “major” or “minor.” See page 8 of the Office Action. Applicants respectfully submit that one of ordinary skill in the art would not find such claim limitations confusing. One skilled in the art would know that “a major amount of base oil” would be an amount greater than or equal to 50% and “a minor amount of diluent oil” would be an amount less than 50%..

The Examiner has also argued that the scope of claim 15 is confusing because it is not clear what “100EC” is. See *id.* Claim 15 has been amended to correct this typographical error and now recites “100°C.”

Applicants respectfully submit that the presently claimed invention particularly points out and distinctly claims the subject matter which Applicants regard as their invention, in accordance with 35 U.S.C. § 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

C. REJECTIONS UNDER § 102

1. European Patent No. 620268

The Examiner has rejected claims 1, 4-5, 7-12, 14-15, and 18-20 under 35 U.S.C. § 102(b) as being anticipated by EP 620268 taken in view of evidence given in EP 531585. Applicants note that the Examiner has not rejected claim 3, which recited a

hydrocarbylamine compound, wherein the hydrocarbylamine compound is selected from the group comprising of N-oleyl-trimethylene diamine, N-tallow-trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof. Independent claims 1, 8, and 18 have been amended to incorporate the subject matter of non-rejected claim 3.

Therefore, EP 620268 does not anticipate the present invention. Applicants respectfully request reconsideration and withdrawal of the rejection.

2. U.S. Patent No. 5,942,470

The Examiner has rejected claims 1, 4-8, and 11-20 under 35 U.S.C § 102(b) as being anticipated by U.S. Patent No. 5,942,470 to Norman et al. ("Norman"). Applicants note that the Examiner has not rejected claim 3, the subject matter of which has been incorporated into independent claims 1, 8, and 18. Therefore, Norman does not anticipate the present invention. Applicants respectfully request reconsideration and withdrawal of the rejection.

3. U.S. Patent No. 5,700,764

The Examiner has rejected claims 1, 4-5, 7-8, 11-12, 14, and 16-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,700,764 to Walters et al. ("Walters"). Applicants note that the Examiner has not rejected claim 3, the subject matter of which has been incorporated into independent claims 1, 8, and 18. Therefore, the present invention possesses novelty over Walters. Applicants respectfully request reconsideration and withdrawal of the rejection.

4. U.S. Patent No. 5,126,064

The Examiner has rejected claims 1, 4-8, and 11-19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,126,064 to Barber et al. ("Barber"). Applicants

note that the Examiner has not rejected claim 3, the subject matter of which has been incorporated into independent claims 1, 8, and 18. Therefore, the present invention possesses novelty over Barber. Applicants respectfully request reconsideration and withdrawal of the rejection.

5. U.S. Publication No. 2002/0119895

The Examiner has rejected claims 1-5, 7-12, and 14-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2002/0119895 to Cook et al. ("Cook"). The Examiner argued that Cook allegedly discloses a composition used as a gear lubricant and in turbines wherein the composition allegedly comprises an amine salt of dithiophosphoric acid wherein the amine includes alkyl amine, N-coco-1,3-diaminopropane, or N-tallow-1,3-diaminopropane. The Examiner further argues that these amines allegedly correspond to the presently claimed combination of hydrocarbylamine and alkylphosphorothioate. See page 14 of the Office Action. Applicants respectfully disagree for at least the following reasons.

While Cook discloses that a monothiophosphate may be used to form a salt thereof (page 12, paragraph [0122]), it does not utilize alkylphosphoro(mono)thioates in any formulations with the other presently claimed components. In fact, both examples which exemplify useful phosphorus acid esters according to the reference utilize a dithiophosphoric acid, as admitted by the Examiner. See page 12, paragraphs [0126] and [0127] and page 14 of the Office Action. The examples of lubricating compositions also do not comprise the alkylphosphoro(mono)thioates, as presently claimed. See page 19, paragraphs [0195] to [0204].

Moreover, the reference does not teach a hydrocarbylamine compound selected from the group consisting of N-oleyl-trimethylene diamine, N-tallow-trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof. The alkyl amines N-coc-1,3-diaminopropane and N-tallow-1,3-diaminopropane taught by Cook are outside the scope of the claimed invention. For at least these reasons, Cook does not anticipate the present invention. Applicants respectfully request reconsideration and withdrawal of the rejection.

6. U.S. Patent No. 6,844,300

The Examiner has rejected claims 1-5, 7-12, and 14-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,844,300 to Milner et al. ("Milner"). The Examiner argued that Milner allegedly discloses a gear oil additive concentrate comprising sulfur-containing extreme pressure agent, phosphorus-containing anti-wear compound that is an amine salt of phosphoric acid ester of a particular formula wherein the compound is formed by reacting an amine such as N-coco-1,3-diaminopropane with a phosphoric acid ester, and friction modifier. See page 15 of the Office Action. For the reasons discussed above with Cook, the amine such as N-coco-1,3-diaminopropane is outside the scope of the claimed invention. Thus, the reference does not teach the particular hydrocarbylamine compounds presently claimed. For at least these reasons, Milner does not anticipate the present invention. Applicants respectfully request reconsideration and withdrawal of the rejection.

D. REJECTIONS UNDER § 103(a)

1. Norman, Walters, or Barber in view of Cook

The Examiner has rejected claims 2-3 and 9-10 under 35 U.S.C. § 103(a) as being unpatentable over Norman, Walters or Barber in view of Cook. See page 17 of the Office Action. Claims 2-3 and 9-10 have been canceled rendering this rejection moot.

2. EP 620268 in view of Norman

The Examiner has rejected claims 16-17 under 35 U.S.C. § 103(a) as being unpatentable over EP 620268 in view of Norman. The Examiner argued that the difference between EP 620628 and the presently claimed invention is the requirement in the claims of viscosity of the base oil. See page 18 of the Office Action. The Examiner further argued that Nelson allegedly discloses the use of base oil possessing the claimed viscosities for use in gear oil applications, and it would therefore have been obvious to one of ordinary skill in the art to use base oil with such viscosity in order to arrive at the claimed invention. See *id.* Applicants respectfully disagree for at least the following reasons.

Claims 16 and 17 depend from independent claim 8 and are patentable for the same reasons as claim 8. In particular, and as argued above, EP 620268 does not teach or suggest a hydrocarbylamine compound selected from the group consisting of N-oleyl-trimethylene diamine, N-tallow-trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof. As argued above, Norman does not overcome this deficiency because it too does not teach or suggest the presently claimed hydrocarbylamine compounds. For at least this reason, the present invention is not

obvious in light of EP 620268 in view of Nelson. Applicants respectfully request reconsideration and withdrawal of the rejection.

3. U.S. Patent No. 4,710,100 in view of Cook

The Examiner has rejected claims 21-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,710,100 to Laing et al. ("Laing") in view of Cook. Specifically, the Examiner argued that Laing discloses a wind turbine comprising gear assembly wherein the gear assembly requires lubricant, and the difference between Laing and the presently claimed invention is the requirement in the present claims of a specific composition. See page 19 of the Office Action. The Examiner further argued that it would have been obvious to one of ordinary skill in the art to use the lubricant disclosed by Cook in the wind turbine of Laing and thereby arrive at the claimed invention. See *id.* Applicants strongly disagree for at least the following reason.

While the Examiner argued that the good anti-wear properties of the composition in Cook provide motivation to combine the references, this is simply insufficient motivation. Laing is drawn to a wind machine. See Abstract. Laing does not teach or suggest a particular lubricant other than simply mentioning that all gear systems require lubrication between the flanks of the gear teeth. See col. 3, lines 51-52. While anti-wear properties might be desirable in turbines, Laing does not teach or suggest the desirability of such property. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

Moreover, as argued above, Cook does not teach or suggest the presently claimed alkylphosphoro(mono)thioate and hydrocarbylamine compounds. Thus, the

combination of references would still not teach or suggest all of the claim elements.

Therefore, one of ordinary skill in the art considering Laing and Cook as a whole would not have combined the references to arrive at the claimed invention.

For at least these reasons, the present invention is not obvious in light of Laing in view of Cook. Applicants respectfully request reconsideration and withdrawal of the rejection.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

FEES

It is believed that there are no fees associated with this filing. However, in the event the calculations are incorrect, the Commissioner is hereby authorized to charge any deficiencies in fees or credit any overpayment associated with this communication to Deposit Account No. 05-1372. Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 05-1372.

Respectfully submitted,



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